

Applicant: Calvin F. QUATE et al.

Examiner: TBD

Serial No: (Unassigned)

Group Art Unit: TBD

Filing Date: (Herewith)

JC996 U.S. PTO
10/072414
02/05/02

Title: METHOD FOR DETECTING CHEMICAL INTERACTIONS BETWEEN
NATURALLY OCCURRING BIOLOGICAL ANALYTE MOLECULES (AS
AMENDED)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Pursuant to 37 CFR § 1.56, § 1.97 and § 1.98, the documents listed on the accompanying form are called to the attention of the Examiner for the above patent application.

Citation of these documents shall not be construed as (1) an admission that the documents are necessarily prior art with respect to the instant invention; (2) a representation that a search has been made, other than as described above; or (3) an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

Included herewith are photocopies of references 'I' and 'V' – 'AD'. To avoid lengthy and unwieldy printed documents, the U.S. and Foreign Patent Publications cited on the accompanying form, i.e., references 'D' – 'H' and 'J' – 'N', are provided in Adobe Acrobat (.pdf) format on the accompanying CD-ROM (2 copies) per the accompanying petition under 37 CFR §§ 1.181, 1.182, or 1.183. Copies of references 'A' – 'C' and 'O' – 'U' are omitted, as these references were submitted and reviewed by the examiner during prosecution of the parent application, U.S. serial no. 09/097,675. If the examiner would like hard copies of any reference on the CD, or any reference not provided for the aforementioned reasons, please contact the undersigned and the reference(s) will be provided.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 01-0431. Please deduct any additional fees from, or credit any overpayment to the Deposit Account of Affymetrix, Inc., number 01-0431.

Dated: 1-29-02

Respectfully submitted,



Philip L. McGarrigle
Reg. No. 31,395

Legal Department
Affymetrix, Inc.
3380 Central Expressway
Santa Clara, CA 95051
Tel: 408/731-5021
Fax: 408/731-5392

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	3
-------	---	----	---

Complete if Known

Application Number	(unassigned)
Filing Date	January 30, 2002
First Named Inventor	Calvin F. Quate
Group Art Unit	TBD
Examiner Name	TBD
Attorney Docket Number	3053.1C

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
	J	US99/25464	05-04-2000	Bamdad et al.		
	K	US97/09739	12-11-1997	Meade et al.		
	L	US98/12430	12-17-1998	O'Connor et al.		
	M	US99/10104	11-11-1999	Bamdad et al.		
	N	US99/01703	11-11-1999	Bamdad et al.		

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known

Application Number	(unassigned)
Filing Date	January 30, 2002
First Named Inventor	Calvin F. Quate
Group Art Unit	TBD
Examiner Name	TBD
Attorney Docket Number	3053.1C

PTO
10/072414
J2996 U.S.

02/05/02

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	O	BERGER et al., Surface Stress in the Self-Assembly of Alkanethiols on Gold, Science, Jun. 27, 1997 Vol. 176, p. 2021	
	P	BERGER et al., Nanometers, Picowatts, Femtojoules: Thermal Analysis and Optical Spectroscopy Using Micromechanics, Analytical Methods & Instrumentation, Special Issue, .mu.TAS '96	
	Q	GIMZEWSKI et al., Observation of a Chemical Reaction Using a Micromechanical Sensor, Chemical Physics Letters, Vol. 217, No. 5,6, Jan. 28, 1994	
	R	MINNE et al., Automated Parallel High-Speed Atomic Force Microscopy, Applied Physics Letters, Vol. 78, No. 18, May 4, 1998	
	S	MANALIS et al., Interdigital Cantilevers for Atomic Force Microscopy, Applied Physics Letters, Vol. 69, No. 25, Dec. 16, 1996	
	T	LANG et al, Sequential Position Readout from Arrays of Micromechanical Cantilever Sensors, Applied Physics Letters, Vol. 73, p. 383, 1998	
	U	MANALIS et al., Two Dimensional Micromechanical Bimorph Arrays for Detection of Thermal Radiation, Applied Physics Letters, Jun. 16, 1997	
	V	YU et al., Molecular Wires attached to DNA Oligonucleotides for Electronic Detection of Nucleic Acids, Abstracts of Papers of the American Chemical Society, 1999, Vol. 217, No. 1, Mar. 21, 1999	78
	W	YU et al., Ribose-attached Ferrocene DNA Oligonucleotides for Electronic Detection of Nucleic Acids, Abstracts of Papers of the American Chemical Society, 1999, Vol. 217, No. 1, Mar. 21, 1999	77
	X	YU et al., Uridine-conjugated Ferrocene DNA Oligonucleotides for Electronic Detection of Nucleic Acids, Abstracts of Papers of the American Chemical Society, 1999, Vol. 217, No. 1, Mar. 21, 1999	76
	Y	TERBREUGGEN et al., Electrochemical Detection of Unlabeled Target DNA, Abstracts of Papers of the American Chemical Society, 1999, Vol. 218, 1, Aug 22, 1999	155

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 3 of 3

Complete if Known

Application Number	(Unassigned)
Filing Date	January 30, 2002
First Named Inventor	Calvin F. Quate
Group Art Unit	TBD
Examiner Name	TBD
Attorney Docket Number	3053.1C

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	Z	KAYYEM et al., DNA Diagnostics Using ELectionic Detection, Clinical Chemistry, 1999, Vol. 45, N6,2,S, Jun. 1999	
	AA	BLACKBURN et al., Electrochemical Detection of Nucleic Acids on SAMs-Constructed Arrays, Abstracts of Papers of the American Chemical Society, 2001, Vol. 222, 2, Aug. 2001	
	AB	YU et al., Electrochemical Detection of Nucleic Acids on DNA Arrays Constructed Using Self-Assembled Monolayers, Abstracts of Papers of the American Chemical Society, 2001, Vol 221, 2, April 1, 2001	
	AC	FOLKERS et al., Self Assembled Monolayers of Alkanethiols on Gold: Comparisons of Monolayers Containing Mixtures of Short and Long Chain Constituents with CH ₃ and CH ₂ OH Terminal Groups, Langmuir, 1992, Vol. 8, pp. 1330-1341, May 1992	
	AD	UMEK et al., Electronic Detection of Nucleic Acids - A versatile Platform for Molecular Diagnostics, Journal of Molecular Diagnostics, 2001, Vol. 3, No. 2, pp. 74-84, May, 2001.	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.